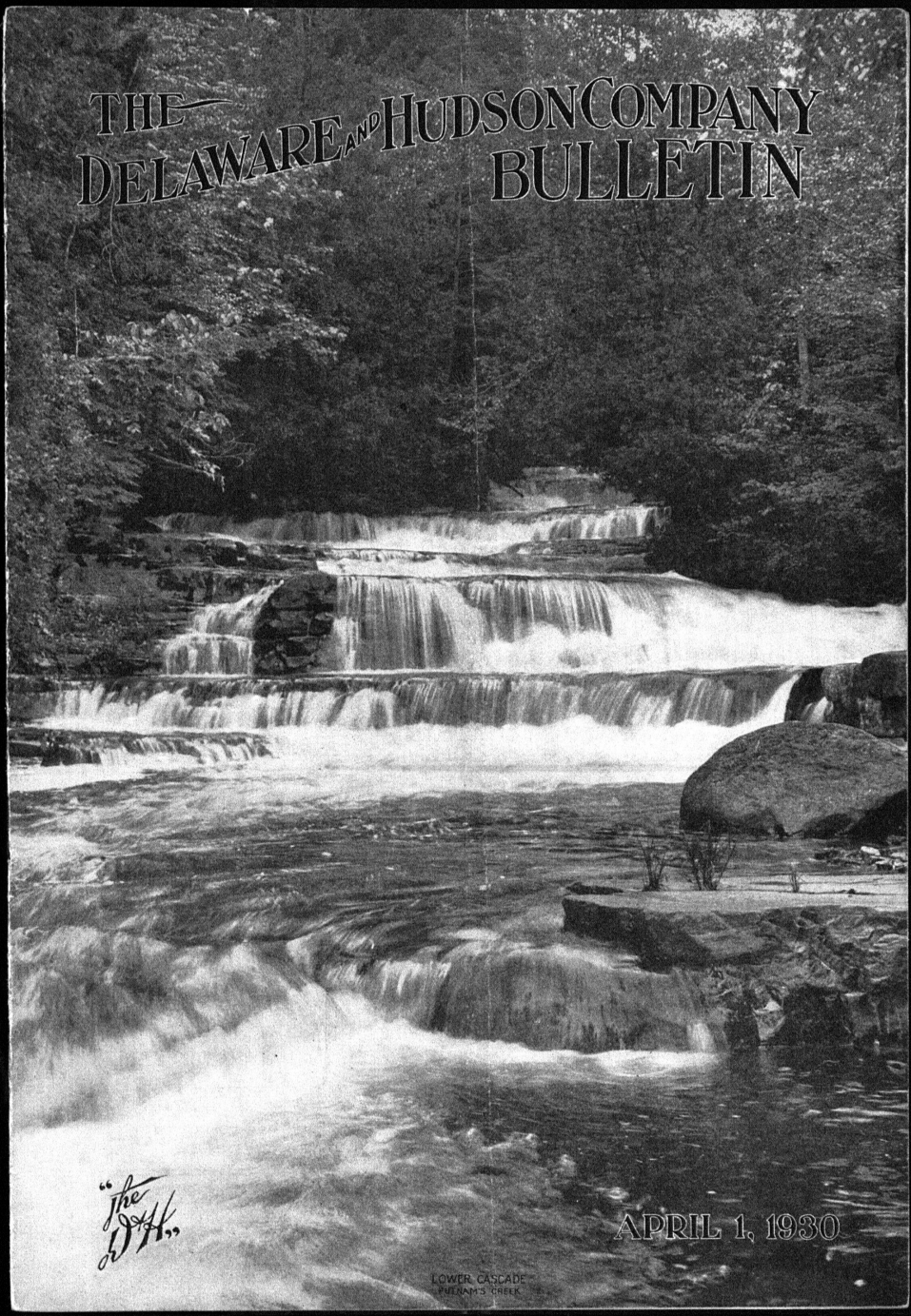
THE DELAWARE AND HUDSON COMPANY BULLETIN



"The D&H"

APRIL 1, 1930

LOWER CASCADE
PUTNAM'S CREEK

Swimming Up-Stream

It's easy to drift as the current flows;
It's easy to move as the deep tide goes;
But the answer comes when the breakers crash
And strike the soul with a bitter lash—
When the goal ahead is endless fight
Through a sunless day and a starless night
Where the far call breaks on the sleeper's dream,
"Only the game fish swims upstream".

The spirit wanes where it knows no load;
The soul turns down the Easy Road;
There's fun enough in the thrill and throb,
But life in the main is an uphill job;
And it's better so, where the softer game
Leaves too much fat on a weakened frame,
Where the far call breaks on the sleeper's dream
"Only the game fish swims upstream".

When the clouds bank in—and the soul turns blue—
When Fate holds fast, and you can't break through—
When trouble sweeps like a tidal wave
And hope is a ghost by an open grave
You have reached the test in a frame of mind
Where only quitters fall behind,
Where the far call breaks on a sleeper's dream,
"Only the game fish swims upstream".

—ONONDAGA SPORTSMAN.

The DELAWARE AND HUDSON COMPANY BULLETIN

Vol. 10 | Albany, N. Y., April 1, 1930 | No. 7

Before the Days of Air Brakes

Retired Schenectady Trainman Tells of the Link and Pin and the Hand Brake

WHEN a freight train breaks in two in this day of the automatic coupler and the Westinghouse air brake, the train crew immediately knows that something is wrong. As the parting of the air hose between the cars sets the brakes in emergency, the train can go no farther until it is again properly coupled or the end angle cock is closed so that the brake pipe may be re-charged and the brakes released. It was different before these devices were invented.

According to retired Yard Conductor TERRENCE H. BURNS, the train crew of the old Schenectady - Rutland night freight had a unique way of notifying the engine crew that the train had broken in two. They used what was then termed a "bell cord". Although somewhat similar in purpose to the bell cord now used on passenger cars, its mode of operation was entirely different.

TERRENCE H. BURNS

The cord, in reality a light rope, was wound on a reel in the caboose. When the train had been made up in the yard, the brakeman passed one end of it through a hole in the front of the caboose. He then carried it to the head end of the train where it was attached to the clapper of a bell located in the engine cab.

While the train remained intact the rope lay on top of the cars. When stops were made to set off cars, the head brakeman disconnected the rope from the bell and carried it back to the point were the cut was to be made. After the engine had been recoupled to the train the rope was again attached to the clapper, and the slack was taken up by means of the reel in the caboose.

In the event of a break-in-two, the cord would tighten, striking the gong. If the engine continued very far after the gong struck, the rope would break. While of some value, the rope caused no end of trouble by catching on projections on cars, especially on carloads of hop poles, which at that time were shipped south over the Rensselaer and Saratoga in great quantities.

It must be understood, before discrediting such a device, that this was in the day of the link and pin. It would be relatively easy for an engineman who could see the rear end of his train only at infrequent intervals on account of curves, to proceed for quite a distance without knowing that the caboose and several cars had broken off and were already some distance behind, and perhaps going in the opposite direction!

MR. BURNS well remembers a trip when that very thing happened. Several cars broke away from his train on the grade between Fort Edward and Gansevoort. The engine crew knew nothing of what had happened until they reached Gansevoort and were told about it. After making arrangements to have the runaway cars pushed back to Fort Edward by a northbound train, they continued south to Schenectady without them. (Freight movement was somewhat uncertain in those days.)

The practice of running freight trains on scheduled time is relatively new. While many freight trains in the past had, or were supposed to have, a regular time of departure, their time of arrival more or less depended on the delays they experienced on the road. The idea of scheduling is not new, however, for in 1879 when MR. BURNS was on the Schenectady-Rutland night freight, they had set times for their departure from Schenectady, arrival at Rutland, and return.

The train crew, consisting at that time of Conductor James Gallagher, Engineman Peter Hanrahan, Fireman Bennett, Trainmen Peter Gallagher, Paddy King, and MR. BURNS, left Schenectady at 7 P. M. with 40 cars of coal or other freight for Saratoga Springs, Fort Edward, and Whitehall. The eastbound trains at that time carried mostly coal, which had arrived in Freight Train Number 20 from Oneonta, and grain from the west.

Upon reaching Whitehall the train was cut to 18 cars for Fair Haven, Castleton, West Rutland, Center Rutland, and Rutland. They were due in Rutland not later than 4:30 A. M. the following day.

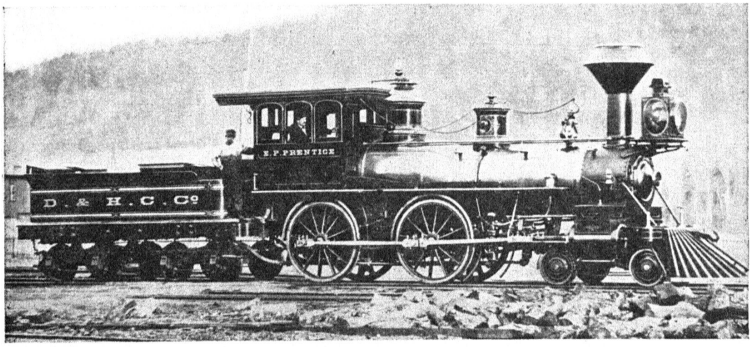
At Rutland they reported for duty in time to make up their own train before their departing time, 9:30 P. M. The Central Vermont Railroad delivered cars on one track and the Delaware and Hudson crew had to switch them into station order before leaving Rutland. At that time W. L. Ferguson was the agent at Rutland and James Leamy, father of VICE PRESIDENT F. W. LEAMY and SUPERINTENDENT M. F. LEAMY, was agent at West Rutland.

Practically all of the marble quarried at West Rutland was then carried by The Delaware and Hudson. At Castleton the crew picked up slate from the Rutland and Washington R. R. (This later became a part of The Delaware and Hudson system.)

The train was pulled by the "Rutland", Number 136, an old "ten wheeler". The crew on the opposite side of the run had the "Ticonderoga" (Number 137). Both of these engines handled their tonnage eastbound without any trouble. On the return trip, however, they had a helper engine from Fort Edward to Gansevoort. From there they continued unassisted to Schenectady, where they were due at 8:30 A. M.

MR. BURNS' first railroad experience was gained in the old Schenectady yard. When he began, in 1876, there were two agents at Schenectady. Agent George Gibson was in charge of the freight house and Agent Ira Brownell supervised the men in the yard. Moyne Pickett was then Yard

(Turn to page 108)



Counting Noses

Fifteenth National Census, Which Takes Place This Month, Requires Services of 100,000 Men and Women to Obtain Answers to Some 20,000 Questions Dealing With Our Everyday Lives

SOME three thousand years ago King David sent his minions forth to take what is believed to be the first authentic census, a task which sought to number the people of Israel and Judah. For nine months and twenty days those early census takers knocked at doors and tugged at tent flaps, and finally reported they had counted 1,300,000 "valiant men" of the sword. All of which indicates that what King David really wanted to know was how many fighting men he could count on for his next war.

This month 100,000 men and women will go into action at the call for the Fifteenth National Census of the United States. The first census, taken in 1790, required thirteen months and the population reported was less than 4,000,000 souls. Workers in the forthcoming census must complete their national stock taking within thirty days. In that short space of time they must secure comprehensive information about the existence and pursuits of some 120,000,000 citizens, including their sex, age, nativity, occupation, and the value of their homes.

That, however, is but the hearthstone aspect of the undertaking, for in the various branches of the Census it will be necessary to ask some 20,000 questions calculated to throw light on almost every subject from the price of prunes to the distribution of perambulators. Meantime some 40,000,000 printed copies of schedules are being prepared for the army of enumerators.

With the growing complexity of our national economic life it has become necessary to measure it in one dimension after another, and in the forthcoming census the survey will, for the first time, take into consideration the problem of distribution as a corollary to the familiar question of production. To the enumeration of population, farms and factories, there will be added an enumeration of the outlets through which the products of industry move into the fields of consumption. This informaton will include data from every store and wholesale dealer regarding sales, inventory, number of employes, salaries, rent, and other expenses.

To accomplish their part of the great task, census enumerators must gather information from every city and hamlet, 6,000,000 farms, 14,000 mines and quarries, 100,000 irrigation and drainage projects, nearly 200,000 factories, 2,000,000 stores, and some 30,000,000 households.

The population of the continental United States is now increasing at the rate of about 1,300,000 persons per year, or approximately one person every twenty-three seconds. The total increase is made up of the annual excess of births over deaths, which amounts to 1,150,000, and the excess of immigration over emigration, which amounts to an additional 240,000 per year. This year the population will be more than thirty times as great as it was in 1790, and nearly twice what it was in 1890, only forty years ago.—*The Technology Review.*

The Road Home

By EDITH D. OSBORNE

It isn't beautiful at all—just a twisting brown lane;
There's an old stone wall, and there are leaves wet with rain.
It winds over a low pasture, sweet with new-turned loam;
Nothing grand or wonderful—just the road home.

I've seen many broad highways where kings used to ride,
And many proud white ways with stately trees beside;
White roads and kings' roads going from sea to sea,
But the nearest and the dearest is the road home, to me.

It isn't beautiful at all—but it's peaceful and calm,
And the rain patters on the wall like a sort of quiet psalm.
Oh, I've traveled the world over; it's far I've had to roam;
And I'd give the world to go today up the old road—home!

Aviation Development

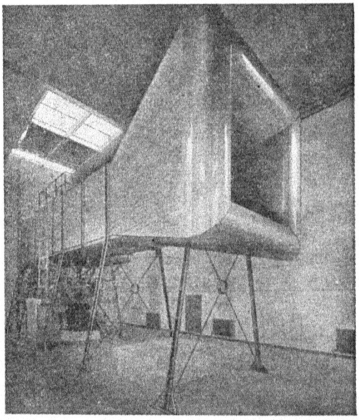
(Continued from last issue.)

Courtesy Mahoney-Ryan Aircraft Corp.

Plane arriving in Hankow, China

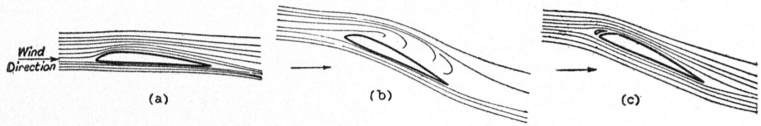
WE are told by Wilbur Wright that their first interest in aviation was aroused as boys by a helicopter given to them as a toy. These two boys had developed into young men of twenty-nine and twenty-five years of age when the death of Lilienthal, in 1896, appears to have again stirred up their interest. They searched all the works they could then get upon the subject of aviation, such as that of Chanute, and it was by studying these works and profiting by the efforts of Mouillard and Lilienthal that the Wright brothers gained the enthusiasm and inspiration to apply themselves zealously to their work until success rewarded their efforts.

As these facts are reviewed, it is plain that although the Wrights must not be thought of as the originators of aviation by suddenly bringing to the notice of the world a heavier than air machine which actually rose from the ground, stayed in the air and returned again to the ground without breaking, yet, the man who gives an idea its place in the world will always be counted its discoverer. If others before thought as he thought, the world does not owe them the honor; for it was he, not they, who first saw the greatness of the idea, and by his gifts of mind, untiring energy and unshaken courage, compelled the world to see it. So, aviation must not be thought of without giving full credit to the Wrights: first, for the actual fact of producing a heavier than air flying machine; second, they gave practical use to the art of flying; third, by the use of an air tunnel which they so ingeniously introduced to measure the exact air currents of a known velocity and the effect of these currents on a plane, they were able to work out and deduce on a scientific basis, theories that are still used



Courtesy "Discovery

Wind Tunnel



HOW THE SLOTTED WING INCREASES THE "LIFT" OF THE MACHINE

(*a*) Air flowing past the upper surface when the wing is at angles below the stall. (*b*) "Breakaway" of the flow as greater angle is reached. (*c*) Effect of slot in restoring the flow to normal, although the wing remains at the same angle as in *b*. Experiments with models suspended in wind tunnels have aided tremendously in the development of all of the important parts of the modern airplane.

in the science of aviation. Other inventors, such as Maxim and Langley, carried on their experiments by small models which they flew about their laboratories. No accurate scientific data could be recorded. By keeping the model fixed in an air tunnel and measuring effects of known velocities of air currents or winds upon it, accurate and reliable records could be made. This, then, may be considered one of their greatest contributions.

Theirs was not an accidental achievement, but one resulting from a combination of scientific research and practical application. Wilbur Wright, as far back as 1901, when lecturing, made the remark that there were two ways of learning to ride a fractious horse; the first was to mount him and learn by actual practice; the other to watch and study the animal and then retire, and at leisure figure out the best way to overcome his jumps and kicks. The latter method,

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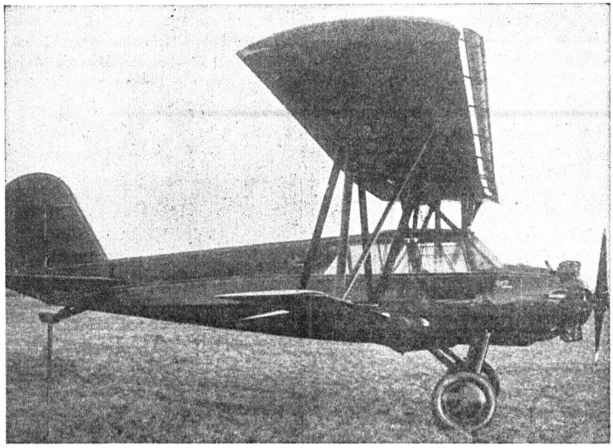
Prize Winning Safety Plane



THE first prize of $100.000 in the international safe-aircraft competition sponsored by the Daniel Guggenheim Fund for the Promotion of Aeronautics was awarded to the Curtiss *Tanager* pictured above. The board of judges which made the award was headed by Orville Wright. The slots, which are used in both the upper and lower wings, show clearly in the upper wing in the photograph.

he said, is the safest, but the former, on the whole, turns out the larger proportion of good riders. He said this was the same in learning to ride a flying machine, the balancing of a gliding or flying machine being very simple in theory, consisting merely in causing the center of pressure to coincide with the center of gravity.

The fact is, the Wrights scientifically analyzed their problem and methodically proceeded upon its accomplishment. First gliders were used. The brothers soon determined that they must make the glider stablize itself rather than by shifting the weight of the passengers as had previously been done by experimenters of this kind. Accordingly, they warped the wings. Second, by practice in flying these gliders and comprehensive observations in connection therewith. They referred to the Weather Bureau and were advised that at Kitty Hawk, N. C., would be found the most constant and steady winds, meeting their requirements. Third, by building their own engine; and, finally, by flying themselves the machine they had constructed.

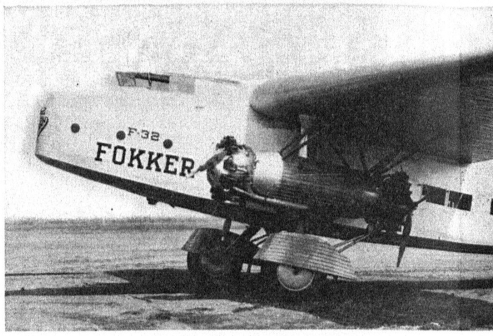
The first successful flight was a matter of seconds, the plane flying at perhaps 30 or 35 miles per hour. Today, duration records of sustained flights of as much as 65 hours *without refueling* are being made and speeds of 360 miles per hour accomplished. The development was slow until the advent of the World War in 1914 which intensified the construction of aircraft for military purposes. In the United States alone, during the nineteen months we were engaged in war, 11,000 military aeroplanes were built. The establishment of air-mail service, commercial lines, and the impetus given to aviation by recent trans-oceanic flights have fixed the attention of the public upon aviation as air transport, commercial air service and private flying.

Some of the more conservative, enthusiastic minds concentrated on this new science seem to think that the time is not far distant when the passengers will plan their trips and purchase their tickets by air-service to all parts of the country as they would by railroad or by autobus. As an adjunct to the railroads, aviation may develop and grow, especially where the railroad is not now properly functioning and in regions, heretofore, difficult of access. In Africa, air lines are traversing regions in hours, which previously have taken days to cross.

Civilizations, through time, have constructed their highways, and owned their rights of way. The institution of our civilization is built on a three-legged stool. First, the institution of the family; second, the institution of private property and third the institution of government, based on justice and morals. These are very precarious foundations on which to build so big a thing as civilization and it requres that we be eternally vigilant and strenuous in guarding these foundations.

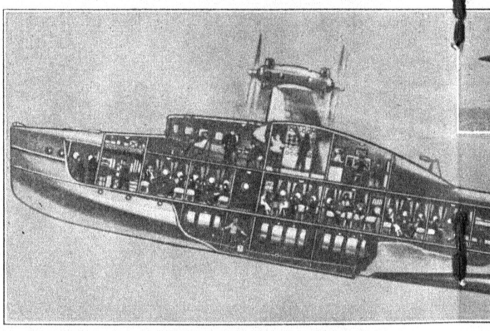
In the law, Blackstone says, "Land hath also, in its legal significance, an indefinite extent, upwards as well as downwards. '*Cujus est solum,*

World's Largest L



This huge Air-Liner is 69 feet long, 99 feet from t

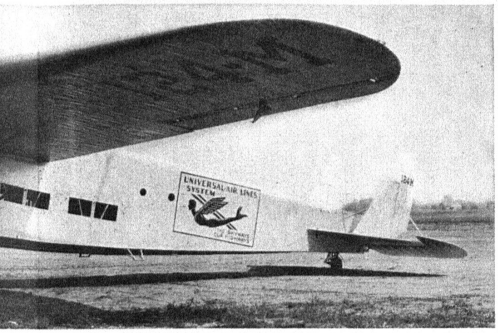
The "Leviathan'



Photographs by cou

The famous Dornier-X seaplane, built at Friedrichshafen, Germany, has twelve mo
169 passengers and crew, remaining in the air for more than an hour. The pl

argest Land Plane



Courtesy Fokker Aircraft Corp.

9 feet from tip to tip of wings, and carries 32 persons

ejus est usque ad coelum', (He who owns the ground possesses also to the sky), is the maxim of the law, upwards; therefore no man may erect any building, or the like, to overhang another's land: and, downwards, whatever is in a direct line between the surface of any land and the center of the earth, belongs to the owner of the surface; as is every day's experience in the mining countries. So that the word "land" includes not only the face of the earth, but everything under it, or over it."

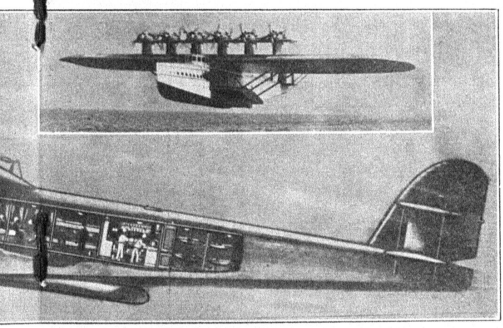
It is the duty of the State to protect man in the rights of his property and by the declaration of the Constitution of our country, this private property cannot be taken for public use except by just compensation to the owner. In the establishment of air lines and air-ways, we find expropriation of private properties both by trespass of the casual flier, and organized appropriation of airmail rights by the government and commercial activities.

There are two types of thought, or rather two schools of thought as regards the government. One is that we hold all we value of life, property and religion itself through the police, the jail and the gallows. The other school is that in the ultimate analysis, there is a moral force that prevails in the community. In this sinister appropriation of private property, neither school of thought shows any practical interest. Neither does the organized power of the State set in motion, nor is there any stirring of the moral forces of the community, which seems one of the most singular phenomena in our experience.

Suppose, for example, we consider the air rights of communities where these have their distinct values. For instance, the air rights of the New York Central Railroad over its tracks on 42nd Street, New York, or think what would happen if someone would buy property on either side of Fifth Avenue, construct buildings to the sixth story and then make a solid building from this on up, taking the air rights of the municipality over the street. Yet, in principle that is what is happening with the post-office routes of the government. Frequently, crashes of planes following airmail courses are occurring near dwellings. As the routes and the planes become more numerous, the possibilities of hitting the houses and injuring the occupants become greater, for these air-routes pass over many private dwellings.

There is an old law case where a balloonist was making ascensions at a fair ground. His balloon broke away and passed over a property where there was an elaborate garden. The balloonist pulled the rip cord and descended on the other side of this property. The crowd from the fair grounds rushed through the garden to the assistance of the balloonist. Suit was brought by the owner against the balloonist. First, for trespassing in flying across the property, and second, for inciting the mob to damage the garden. The damages were awarded. One by one cases are being brought up in various lands and damage and trespass alleged to be incurred by aviation upon private owners.

viathan" of the Air



graphs by courtesy of "Modern Transport,' London, and" Baltimore & Ohio Magazine

as twelve motors. On a trial trip over Lake Constance, Switzerland last fall it took up our. The plane was constructed for service between Germany and South Africa

The
Delaware and Hudson Company
BULLETIN

Office of Publication:
DELAWARE AND HUDSON BUILDING,
ALBANY, N. Y.

PUBLISHED semi-monthly by The Delaware and Hudson Company, for the information of the men who operate the railroad, in the belief that mutual understanding of the problems we all have to meet will help us to solve them for our mutual welfare.

Vol. 10 April 1, 1930 No. 7

April Centennials

ALTHOUGH our company celebrates its 107th birthday on the twenty-third day of this month other days had great significance during this same month at the time when the lusty youngster was reaching the age of seven years. Going back for a moment to April 1830 there are noted the following:

April 10—Storehouse for receiving shipments for forwarding via the Gravity railroad ordered built at Honesdale.

Purchase of mules for hauling cars on the Gravity ordered.

Fifteen tons of Anthracite sent to Providence as a sample.

April 21—Sale of $150,000 New York State stock reported.

Prices for Anthracite in quantities of 50 gross tons or over fixed as follows: First quality $6.00; Second quality $5.50 per ton.

President Bolton requested to reside at Bolton (Rondout) during canal navigation season to take charge of business there.

April 24—Contract made for boring for water at Gravity Plane No. 5 at the summit for plane engine supply.

Five hundred dollars subscribed to the Blakely Turnpike Company.

April 28—Advertisement for lease of lands at Bolton as site for brewery published.

Five hundred dollars advanced to James S. McEntee on his contract to excavate anthracite at Carbondale.

Nip It In The "Bud"

PROTECTING children from tuberculosis is to be the objective of national effort in April, 1930, when tuberculosis associations throughout the country join in an educational campaign to impress on the public that this disease begins in childhood.

The seeds of tuberculosis are sown during the early years of life. Later, when the disease ripens into activity, it becomes an object of public concern because then it is obvious. To remind people that the most effective preventive measures should be taken during the period of latency is the purpose of the campaign.

Last year, by means of a similar effort, thousands of adults were examined and many found to have tuberculosis or other serious defects. Others, whose peace of mind had long been gnawed by the fear that they might be in danger, were impelled to take the step of "letting the doctor decide" and had the great satisfaction of learning that their fears were unfounded. Early discovery is desirable. To anticipate the disease while it is yet a "seedling" is still better.

Children in whom tuberculosis threatens to gain a foothold may have symptoms so slight as to be overlooked. But there are certain diagnostic aids, such as the tuberculin test and the X-ray, which greatly aid in diagnosis. All children, particularly those who show signs of early tuberculosis, should:

Be kept away from sick people.

Get plenty of sleep.

Have their work, study and play so adapted to their strength as not to weaken their resistance.

These, and other things which can be done, will be told the public during the campaign by local tuberculosis associations everywhere, and especially that a child who is below par in health should see a doctor regularly. Prevention must begin before the enemy strikes.

From 300,000 to 400,000 poles are used annually by the Western Union Telegraph Company to keep its nation-wide network of lines in good condition, and several thousand acres of forest land must be cut over each year to supply this quantity of poles.

Of the 1,347 establishments engaged primarily in the manufacture of cotton goods in the United States, 838, or 66.2 per cent, are in the Southern states.

Chicago's Underground Railroad

Thousands of Carloads of Merchandise Move Unnoticed Forty Feet Below Metropolitan Street Level

ONE of the most interesting and at the same time most unobtrusive freight carrying railroads of this country is that which operates under the streets of Chicago. A description which appeared in *The Traffic World* gives a very good idea of the system:

"While the passenger traction problem in Chicago remains the football of politics, and while even the most optimistic advocate of passenger subways hopes only for the completion of twenty-five miles or so within the next decade, sixty-two miles of freight subways, about which the average Chicagoan knows little or nothing, are in daily operation, hauling merchandise, coal, cinders and excavation refuse to the number of several thousand tons a day, between industries and rail terminals, from one terminal to another, and from locations within the loop district to a disposal station at Grand Avenue, on the north branch of the Chicago River.

"Last year, the 3,300 six-ton, steel-slatted merchandise cars of the tunnel company hauled 601,000 tons of merchandise, practically all of it in small lots. In addition, the 151 coal cars carried 57,440 tons of coal from receiving stations on the C. & E. I. and the Illinois Central to the large loop and near-loop office and factory buildings. Of cinders, 28,095 carloads of 3½ yards capacity, and of excavation and refuse, 74,084 carloads of similar capacity were disposed of. All, or practically all, of this material would have moved through the congested streets of the Chicago loop, so that it would appear that the more sane course of keeping the citizen above the ground and moving the freight under ground is successfully in operation in Chicago at present.

"The Chicago freight tunnels are a by-product of the telephone lines. Originally, they were planned merely to carry the cables and wires for the Illinois Telephone and Telegraph Company, in a manner similar to the way in which the cables are racked in the sandstone tunnels which honeycomb the downtown district of St. Paul, Minn. The City of Chicago granted a franchise to the telephone company in 1899. By 1903, when twenty miles of tunnels had been dug, the investment was found too heavy for this exclusive use and the facilities were sold to the Illinois Tunnel Company, under an amended city ordinance empowering the operators to handle package and bulk freight. Since that time, the properties have gone through a two-year receivership, from which they emerged in May, 1912, as the Chicago Tunnel Company, which holds the title to the property, and the Chicago Warehouse and Terminal Company, which was originally empowered 'to build tunnels under railroad and private property, and connecting shafts and elevators to buildings, railroad freight houses, shippers' premises and universal freight stations.'

"The physical layout of the tunnels is interesting. They are of a standard size, 7½ feet high, and 6 feet wide at the widest part, which is about 3 feet above the floor. Thus, in profile, they are shaped like a horseshoe. The tunnels are bored through blue clay and faced with a foot thickness of solid concrete. Their average level is 40 feet below the street, far below the network of wire conduits, water and gas mains and sewers that underlie every metropolitan city street—even below any level that has thus far been suggested for a passenger subway.

"Whatever trepidations may originally have been felt, as to the seepage into these diggings, and as to the effect they might have on the foundations of adjacent buildings, have not materialized. The former is slight and is controlled by a series of pipes, which connect with 63 pumps, which force the water 'up into the sewers.' The general condition of the tunnel atmosphere is cool and dry (the average year-'round temperature is 55 degrees Fahrenheit), and strong drafts keep the atmosphere so pure that the tunnels have been tapped in many places for the ventilation of large office buildings and theaters. No effect on the foundations of adjacent buildings has been noted in the 25 years in which the tunnels have been in operation.

"The company owns and operates 150 electric locomotives, each capable of drawing a train of from ten to fifteen of the merchandise or coal cars. Power is transmitted by a trolley system. The gauge of the rails is two feet. The intersections in the tunnel, of which there are 734, are amply protected by safety devices, and the

movements of trains are controlled from a dispatcher's office, in which the location of each train is known at any given moment. The tunnels are lighted by 3,800 electric lamps, but long stretches are without light. Here, the engineer depends on the light from his own headlight. There are also 266 telephones scattered throughout the tunnel.

"The tunnels connect with every railroad entering Chicago except one. There are a total of 49 points at which such connections are made. There are also connections at nine public warehouses, and four universal public freight stations are maintained. On the other hand, the tunnels connect with most of the large stores and industries in the downtown Chicago district. At many other places, such as office buildings, hotels and public buildings, connections are maintained for inbound coal and outbound cinders. One of the latter particularly worthy of mention is the Field Museum of Natural History, built on the Lake Michigan front, on the site of the tunnel company's earliest disposal station. The tunnel trains thus now haul in coal and haul away cinders from a great structure built upon land made from cinders and refuse brought to the site by the same agency.

"Those shippers who have direct connections with the tunnels have in them an instrument that greatly facilitates less-carload shipping. The tunnel company acts as a distributor among the various outgoing railroads, and all that it is necessary for the shipper to do is to deliver the packages to the tunnel company at his own tunnel loading platform. The company operates as an inter-state carrier on through movements and accepts through bills of lading.

"For the convenience of shippers not situated on the direct lines of the tunnel, the company maintains the four universal stations above mentioned. These are on the outskirts of the loop district. Here, too, the shipper may deliver a truck-load of package freight for shipment over a variety of railroads, and have the packages sorted and delivered by the tunnel company.

"Perhaps the most striking use of these facilities is that made by the department stores, seven of the largest of which have direct tunnel connections. A traffic survey made by one of these stores shows that, by delivering outgoing packages to the tunnel cars and by picking them up at universal stations for delivery to the customer, approximately 400 delivery movements are saved every day. In addition, this store figures that, through its tunnel receipts of sixty tons of coal each day and the disposal of its cinders, something over 100 truck movements a day are eliminated.

"The value of these facilities is so well understood that a large Chicago building, now under construction north of the loop, is extending its sub-basements down five floors to effect tunnel connections.

"All told, 2,000 cars of freight are delivered every day to the various railroad terminals. Eight hundred are loaded from railroads for delivery to local consignees or for transfer to other railroads. From new building construction and from cinders, the tunnel adds between 200 and 300 more cars each day."

Before the Days of Air Brakes

(Continued from page 100)

Foreman, a position combining the duties of yardmaster and yard conductor. There were only five or six tracks in the yard at that time.

MR. BURNS went to work with the crew of the yard engine "Fort Edward", number 117. The "Fort Edward" was an American type locomotive commonly called a "four wheeler". He joined forces with Engineman Phil Sleight, Fireman Hugh Burns, and Trainman James Killigaen, in the freight house yard along the old Erie Canal.

Apples, slate, and other products from Vermont were there transferred to canal boats for shipment to the west. New York Central locomotive fuel was then received from Rondout via the Hudson River and Erie Canal and stored in an engine fueling station located adjacent to the Delaware and Hudson yard.

At that time G. G. Maxon's grain elevator was located on the present site of the Delaware and Hudson freight house. Here the grain in the canal boats was transferred to Delaware and Hudson freight cars for movement to Boston and other New England points via the old East and West Line at Rutland. The elevator loaded approximately three cars in 30 minutes through its three chutes. Cars for loading were placed on a spur adjacent to the elevator track from which they were "switched" into position under the chutes with the help of a horse.

For three years MR. BURNS served as a trainman in the old yard. "At that time," he says, "the foreman (conductor) received $65, and a trainman $35, per month. In other words, the foreman was paid for what he knew and didn't do. The trainman was paid for what he did and didn't know."

His period of service, on the Rutland night freight, which followed, was filled with exciting experiences. One night the crew received orders to meet an opposing train at Summit, a short distance south of Gansevoort. The dispatcher, by mistake, arranged with the other train for a meet at Gansevoort. This "lap order", as it was termed, nearly caused a head-on collision. As it was the trains were stopped a short distance apart when the engineers each saw the other's headlight and realized that some mistake had been made.

Mr. and Mrs. Burns now reside at 1089 North Dean Street, Schenectady. They have three sons, all of whom are married and live elsewhere.

Bowling Activities

THE members of the Ladies' and Men's Bowling Leagues of The Delaware and Hudson Athletic Association held an informal social, Saturday evening, March 1, in Albany.

Following dinner, the guests enjoyed dancing and a program of vocal and instrumental solos and dance specialties, all of which were given by members of the Association with the exception of one act by a team of professional dancers. Much latent talent was brought to light as the various entertainers were called upon to present their numbers.

F. L. HANLON, President of the Association, was the only one requested to speak. In his characteristically jovial way, he reviewed the progress of the Bowling Leagues during the season now fast coming to a close.

Through the efforts of the Athletic Association, too, an exhibition of match bowling was presented Tuesday evening, March 11, on the Broadway Y. M. C. A. alleys, when Joe Falcaro, a champion professional bowler, rolled ten games against five members of the Association. Mr. Falcaro's total for the ten games was 2178, an average of nearly 218 per game, compared with 1971 for our bowlers.

Of the three Delaware and Hudson men opposing him, BEALE alone approached the visitor's score. He tied Mr. Falcaro at 169, in the first game; led him by one pin, 224-223, in the second; only to fall behind by 22 points in the final. In his first game with GEORGE WALDBILLIG, Mr. Falcaro rolled 278, missing a perfect score when he made only a spare in the sixth frame.

Veterans!

Important Announcement

AT the Annual Meeting of the Delaware and Hudson Veterans' Association held at Albany, N. Y., January 12th, 1930, the following amendments to the Constitution and By-Laws were proposed:

PAGES 8 AND 9 ARTICLE VII, SECTION 3

NOW READS

Each application for membership, except from pensioned employes, must be accompanied by the sum of Two Dollars and Fifty Cents ($2.50) which shall constitute the current year's dues of One Dollar ($1 00) and admission fee of One Dollar and Fifty Cents ($1.50), and if not accepted, money shall be refunded to the applicant; and it is understood that membership dues are due January the 1st, each year, regardless of the date the application is made for membership. Pensioned employes shall pay annual dues of Fifty Cents ($.50) which shall be used to pay their subscription to such publication as shall by resolution be adopted at a regular meeting as the official publication of this Association.

AS PROPOSED

That yearly dues for members be increased from $1 00 to $2.00 a year, and pensioned members from $.50 to $1.00 a year.

PAGE 9 AND 10 ARTICLE VII, SECTION 6

NOW READS

In case of the death of a member of this Association, the Vice President in whose district the death occurs, is authorized to procure a suitable floral tribute, the cost of which is not to exceed the sum of Five Dollars ($5.00), and forward bill, properly approved, to the Secretary for payment.

AS PROPOSED

That a memorial certificate be prepared and presented to the bereaved family of the deceased member, in place of floral tribute now provided.

Action will be taken on the proposed changes at the next regular meeting in April 1930.

W. J. HILL, *Secretary* — H. N. ATHERTON, *President*

Tommy: "Ooh, Daddy! You're kissing the maid!"

Father: "Good grief, son, bring me my glasses. I thought it was your mother."

"Revising the Calendar"

PROBABLY not one man in a million, says Moses B. Cotsworth, director of the International Fixed Calendar League, realizes that the basis for making each year's scientific calendar requires six years of cooperative work by astronomers in five leading nations.

On August 17, 1927, the calculations for the year 1933 were begun by computors in the Greenwich Observatory and the Nautical Almanac office. These men work out for all the nations the right ascension and declination of the sun, moon, and eighty-four of the fixed stars at each of the twenty-four hours in every day.

By August, 1928, these results were printed and sent to the directors of the national observatories in the United States, Germany, France and Spain, to enable each of these nations to begin their quota of the work. No part is duplicated. The United States astronomers work out the eclipses of the sun and moon for all the nations, and the hourly positions of the planets and their satellites. Germany calculates the hourly positions for 307 of the fixed stars in one area of the heavens. It is France's task to work out the hourly position of the Polar stars. Spain does the same work for sixty-five of the more southerly stars.

It takes about eighteen months for these four countries to complete their task, and at the end of that period the four national directors, having printed their results, send copies to each other and to the Greenwich authorities. At Greenwich the information is combined in the Nautical Almanac for 1933, which will be printed and issued by the end of 1930. From this almanac all the nations will be able to work out for each of their own ports the daily times and heights of the tides.—*London Daily Telegraph.*

Mr. Gaddis was playing golf alone. A strange boy kept following him around the course. At the seventh hole he became impatient and turned to the boy saying: "Son, you'll never learn to play watching me."

"I'm not watching you," the boy replied. "I'm going fishing as soon as you dig up enough worms."—*Mueller Brass Craftsman.*

Speed!

SPEED and still more speed in transportation is the endless cry of American industry. And in answer to this demand, the railways in 1929 arrived at new peaks in their accomplishments in increasing the speed of their freight service and in reducing the time of freight in transit.

After discussing railway operating statistics for the full year 1929, just compiled, the *Railway Age* says: "While these technical figures carry to the initiated a striking story of increased operating efficiency, their meaning may perhaps be better grasped generally by some more common measure. At the average train speed of 1922, the year before the railways' improvement program was adopted, a freight train would have covered 266 miles in twenty-four hours; at the average train speed attained in 1929, this train would have covered 317 miles, an increased movement of 51 miles in a day.

"Shifting from increased distance covered in a given time to reduced time required for travel between terminals, the figures show that an average 100-mile trip, including time for intermediate switching, setting out cars, etc., required 9 hours and one minute in 1922 and 7 hours and 35 minutes in 1929. This is a saving of one hour and 26 minutes, on the average, for every hundred miles run by freight trains, or an average time reduction, in general, of 16 per cent. Since the return of the railways to private operation in 1920, this reduction in road time has averaged 22 per cent.

"As it is estimated that the value of freight moving on the railways currently amounts to some two billion dollars and totals approximately seventy billion dollars in a year, this reduction of almost one-quarter in average transit time between terminals, together with the marked improvement in yard and terminal handling, has resulted in a very material saving in interest charges to shippers."

Clicks from the Rails

New Fire Hazard

If you don't believe this one, you may call upon Fire Inspector Holm of the Winnipeg division of the Soo Line for corroboration. It appears that a jack rabbit ran through a blaze where section crews were burning the right of way and set fire to the hair of his tail. The animal then ran under a small building used as a waiting room for passengers at a siding. Under this building, it was learned afterwards, a pole cat had established its nest, which was very imflammable, and the rabbit dived into it, causing a fire that quickly consumed the building. Evidently Mrs. Pole Cat was not at home at the time, otherwise the fire would have been checked in the starting.—*Railway Age.*

* * *

Bees Halt Traffic

Drunk on honey, a swarm of bees recently held up traffic on a railway line for nearly twelve hours, says *Popular Science Monthly.* Near the town of Karlovac, in Serbia, a switch engine tried to move a freight car and derailed it. A jar of honey was cracked and the honey flowed out on the ground. Soon a swarm of bees began to gather. A wrecking gang began the work of clearing the crippled freight car off the track, but the bees swarming about the scene frightened the workmen so that they retreated to a place of safety. It was not until evening that the bees left the scene, with all the appearances of being intoxicated.

* * *

"Clock Power"

According to an estimate of S. A. Pope, Manager of Time Service for the Southern Pacific Railroad, there is sufficient power stored in the 3,000 clocks on that system to haul a heavy passenger train at 60 miles per hour. The total "clock power", computed on a basis of six pounds per clock, would be sufficient to start a train of ten 75-ton Pullmans and haul it at a mile-a-minute speed on level track. In his estimate Mr. Pope included electrically operated government observatory time clocks and other time pieces in stations and offices on the Southern Pacific system.

The Simple Life

Devoid of luxuries, yet possessing all the labor-saving devices essential to carry on with efficiency their life work of agriculture, 200 families of Amish Mennonites live and prosper on ten square miles of land near Arcola, a town in Illinois. This colony, now in the second and third generations, numbers about 1,000 persons and is the only settlement of its kind in Illinois. It was founded by pioneers from a larger and older colony in Pennsylvania, which in turn was established by immigrants from Holland, Belgium, Alsace-Lorraine, and Switzerland. Besides believing in strictest simplicity, the Amish people hold that "cleanliness is next to Godliness."

Two Railroading Dogs

Two dogs, Saul and Rex, earn their board as railroaders. Saul is a collie, owned by a section foreman on the Minneapolis & St. Louis at Rawleigh, Ia. Each evening for four years he has met Train No. 21 to get a newspaper, which the conductor throws off, and takes it home. He knows exactly when it is train time.

Rex is a pointer, owned by the agent of the Virginian at Salem, Va. For the last year he has delivered interchange reports daily between the agent's offices of the Virginian and the Norfolk & Western. If for any reason the report is delayed, he expresses his disapproval of such methods by loud and prolonged barking.

An April Fool!

"Give me a round-trip ticket, please."
"Where to, please?"
"Back here—you darn fool!"—*Reading Magazine.*

Happiness

HAPPINESS in this world, when it comes, comes incidentally. Make it the object of pursuit and it leads us a wild-goose chase, and is never attained. Follow some other object, and very possibly we may find that we have caught happiness without dreaming of it: but likely enough it is gone the moment we say to ourselves, "Here it is! like the chest of gold that treasure-seekers find."
—*Nathaniel Hawthorne.*